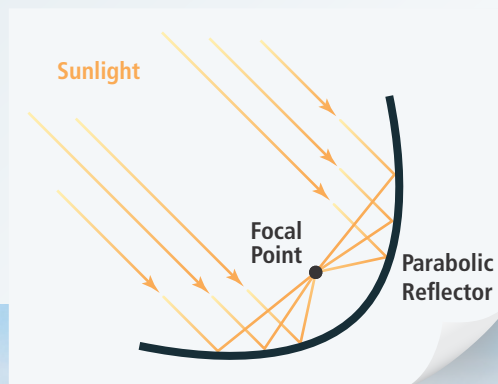


Did You Know?

Solar reflectors are made of mirrors or pieces of glass in many shapes and sizes.

Parabolic reflectors collect the sun's rays from a wide area and **focus them on a small area**, concentrating the energy.



258,048
mirrors



100
megawatts



20,000
homes

The world's largest power station, the SHAMS 1 in the United Arab Emirates, uses **258,048 mirrors**. That's enough to generate **100 megawatts** of electricity per day and power **20,000 homes**.

In 2016, the United States produced more than 40 billion kilowatt-hours of **solar energy**, 40 times more than it did a decade earlier.



Your Task: Design a Solar Collector

Giant solar power plants are not the only place to see parabolic trough collectors—you might find a water purifier made from a single 6 ft-x-4 ft mirror in a neighbor's back yard! You and your classmates will analyze parabolas and design a solar collector for use in your school or community.

